Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the

application:

Claim 1 (currently amended): An apparatus comprising:

a transceiving circuit of an access point to transmit data to or receive data from one or

more subscribers through a wireless transmission medium;

a first data link control (DLC) circuit adapted to transmit data between the

transceiving circuit and one or more devices coupled to a first wired communication network;

a second DLC circuit adapted to transmit data between the transceiving circuit and

one or more devices coupled to a second wired communication network; and

circuitry to control transmission of a first beacon signal and a second beacon signal in

a successive manner in the wireless transmission medium from the transceiving circuit,

wherein the first and second beacon signals are different beacon signals with the first

beacon signal comprising information associated with the first wired communication network

and the second beacon signal comprising information associated with the second wired

communication network.

Claim 2 (original): The apparatus of claim 1, wherein the first and second wired

communication networks comprises distinct physical transmission media.

Claim 3 (previously presented): The apparatus of claim 2, wherein the apparatus

further comprises a first bridge coupling the first DLC circuit to the first wired

communication network and a second bridge coupling the second DLC circuit coupled to the

second wired communication network.

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Claim 4 (original): The apparatus of claim 1, wherein the first and second wired communication networks comprise a common physical transmission medium.

Claim 5 (original): The apparatus of claim 1, wherein the first DLC circuit is associated with a first media access control (MAC) address on the first wired communication network and the second DLC circuit is associated with a second MAC address on the second wired communication network.

Claim 6 (original): The apparatus of claim 5, wherein the first DLC circuit is adapted to transmit data between a first class of subscribers and devices coupled to the first wired communication network, and wherein the second DLC circuit is adapted to transmit data between a second class of subscribers and devices coupled to the second wired communication network.

Claim 7 (previously presented): The apparatus of claim 5, wherein the first and second DLC circuits are coupled to the transceiving circuit at a common lower DLC circuit, and wherein the first DLC circuit is coupled to the first wired communication network at a first upper DLC circuit and the second DLC circuit is coupled to the second wired communication network at a second upper DLC circuit.

Claim 8 (previously presented): The apparatus of claim 1, the apparatus further comprising circuitry to generate a plurality of interleaved target beacon transmission times (TBTTs) based on a timing synchronization function (TSF) and to maintain constant offsets between the plurality of interleaved TBTTs based on the TSF.

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Claim 9 (previously presented): The apparatus of claim 1, wherein the first beacon signal is associated with a first basic service set and the second beacon signal is associated with a second basic service set.

Claim 10 (previously presented): The apparatus of claim 1, wherein the first beacon signal is associated with a first extended service set and the second beacon signal is associated with a second extended service set.

Claim 11 (previously presented): A method comprising:

transmitting data between a transceiver circuit of an access point and subscribers in a wireless transmission medium;

transmitting data between the transceiving circuit and one or more devices coupled to a first wired communication network through a first data link control (DLC) circuit;

transmitting data between the transceiving circuit and one or more devices coupled to a second wired communication network through a second DLC circuit;

controlling transmission of a first beacon signal and a second beacon signal in the wireless transmission medium from the transceiver circuit, the first beacon signal comprising information associated with the first wired communication network and the second beacon signal comprising information associated with the second wired communication network.

Claim 12 (original): The method of claim 11, wherein the first and second wired communication networks comprises distinct physical transmission media.

Claim 13 (previously presented): The method of claim 12, wherein the method further comprises:

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transmitting data between the first wired communication network and the first DLC

circuit through a first bridge; and

transmitting data between the second wired communication network and the second

DLC circuit through a second bridge.

Claim 14 (original): The method of claim 11, wherein the first and second wired

communication networks comprise a common physical transmission medium.

Claim 15 (original): The method of claim 1, wherein the first DLC circuit is

associated with a first media access control (MAC) address on the first wired communication

network and the second DLC circuit is associated with a second MAC address on the second

wired communication network.

Claim 16 (original): The method of claim 15, wherein the method further comprises:

transmitting data between a first class of wireless subscribers and devices coupled to

the first wired communication network through the wireless transmission medium and the

first DLC circuit; and

transmitting data between a second class of wireless subscribers and devices coupled

to the second wired communication network through the wireless transmission medium and

the second DLC circuit.

Claim 17 (previously presented): The apparatus of claim 5, wherein the first and

second DLC circuits are coupled to the transceiving circuit at a common lower DLC circuit,

and wherein the first DLC circuit is coupled to the first wired communication network at a

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first upper DLC circuit and the second DLC circuit is coupled to the second wired

communication network at a second upper DLC circuit.

Claim 18 (previously presented): The method of claim 11, the method further

comprising:

generating a plurality of interleaved target beacon transmission times (TBTTs) based

on a timing synchronization function (TSF); and

maintaining constant offsets between the plurality of interleaved TBTTs based on the

TSF.

Claim 19 (previously presented): The method of claim 11, wherein the first beacon

signal is associated with a first basic service set and the second beacon signal is associated

with a second basic service set.

Claim 20 (previously presented): The apparatus of claim 11, wherein the first beacon

signal is associated with a first extended service set and the second beacon signal is

associated with a second extended service set.

Claim 21 (previously presented): A system comprising:

a transceiving circuit of an access point to transmit data to or receive data from one or

more subscribers through a wireless transmission medium;

a processor to transmit data between the transceiving circuit and one or more devices

coupled to a first wired communication network, to transmit data between the transceiving

circuit and one or more devices coupled to a second wired communication network, and to

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control transmission of a first beacon signal and a second beacon signal in the wireless

transmission medium from the transceiving circuit,

wherein the first beacon signal comprising information associated with the first wired

communication network and the second beacon signal comprising information associated

with the second wired communication network.

Claim 22 (original): The system of claim 21, wherein the first and second wired

communication networks comprises distinct physical transmission media.

Claim 23 (previously presented): The system of claim 22, wherein the system further

comprises a first bridge coupling the processor to the first wired communication network and

a second bridge coupling the processor coupled to the second wired communication network.

Claim 24 (original): The system of claim 21, wherein the first and second wired

communication networks comprise a common physical transmission medium.

Claim 25 (previously presented): The system of claim 21, wherein the processor is

configured to associate the first wired communication network with a first media access

control (MAC) address and to associate the second wired communication network with a

second MAC address.

Claim 26 (previously presented): The system of claim 25, wherein the processor is

adapted to transmit data between a first class of subscribers and devices coupled to the first

wired communication network and to transmit data between a second class of subscribers and

devices coupled to the second wired communication network.

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Claim 27 (canceled).

Claim 28 (previously presented): The system of claim 21, wherein the processor is configured to generate a plurality of interleaved target beacon transmission times (TBTTs) based on a timing synchronization function (TSF) and to maintain constant offsets between the plurality of interleaved TBTTs based on the TSF.

Claim 29 (previously presented): The system of claim 21, wherein the first beacon signal is associated with a first basic service set and the second beacon signal is associated with a second basic service set.

Claim 30 (previously presented): The system of claim 21, wherein the first beacon signal is associated with a first extended service set and the second beacon signal is associated with a second extended service set.

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